

ABSTRACT

An atomizer is provided for combining a precise mass of atomized liquid into a gas stream. The atomizer includes a mixing slot formed in a face of a base member. The mixing slot includes a throat in fluid communication with a gas inlet side having a smoothly decreasing cross-sectional area and a mixture outlet side having a smoothly increasing cross-sectional area. A gas stream enters the mixing slot via the gas inlet side and a liquid enters the mixing slot via a liquid inlet in fluid communication with the throat of the mixing slot. The mixing slot is sealed by a sealing member abutting the face of the base member with the mixing slot in it. The liquid is atomized and combined with a gas stream by venturi effect.